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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of:

Confirmation Number: 8788

DURAND ET AL.

Application No.: 10/686,815

Group Art Unit: 3643

Filed: October 17, 2003

Examiner: Rowan, Kurt C.

Title: SYSTEM FOR TRAPPING FLYING INSECTS AND A METHOD FOR MAKING
THE SAME

APPEAL BRIEF

United States Patent and Trademark Office
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Sir:

In response to the Office Action dated May 4, 2006, in which the Examiner withdrew Applicant's previously filed Appeal, Applicant hereby submits this Appeal Brief, appealing the rejections of claims 1-31 and 42, and claims 32-41 of the present application. This Appeal Brief is being filed with a second Notice of Appeal.

The original Notice of Appeal and corresponding fee were filed August 5, 2005. The original Appeal Brief and corresponding fee were filed November 23, 2005. Therefore, no fee is currently due.

I. REAL PARTY IN INTEREST

The real party in interest is the assignee, American Biophysics Corporation.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals, interferences, or judicial proceedings known to Appellants, the appellant's legal representatives, or Assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF THE CLAIMS

Claims 1-42 stand rejected. The rejections of claims 1-31 and 42, and claims 32-41 are being appealed.

IV. STATUS OF AMENDMENTS

An Amendment After Final was filed on June 3, 2005 and was entered by the Examiner for the purposes of appeal, as evidenced by the Examiner's Advisory Action mailed on June 28, 2005. The attached Appendix sets forth the claims currently pending in this application.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The subject matter of the application is generally directed to a device and method for attracting and capturing flying insects. While some prior art devices use carbon dioxide to attract flying insects, such devices are relatively expensive. Applicants have found a lower cost solution in providing a device that generates an outflow consisting essentially of ambient air from the surrounding atmosphere with an insect attractant diffused therein. In addition, Applicants have found that by

providing a supply of diffusible insect attractant in an attractant receptacle having at least one adjustable opening, the exposure of the insect attractant may be controlled, thereby controlling a rate of diffusion of the insect attractant.

A. Independent Claim 1

Independent claim 1 recites a device 10 for attracting and capturing flying insects. (Figure 1; paragraph [0029], lines 8-10.) The device 10 comprises a frame 14 (Figure 1; paragraph [0030], line 1) providing at least one outlet opening 30 (Figure 1; paragraph [0033], lines 1-3) and at least one inlet opening 26. (Figure 1; paragraph [0032], lines 5-8.) Each of the outlet 30 and inlet openings 26 are communicated to a surrounding atmosphere. (Figure 1; paragraph [0032], lines 2-3; paragraph [0033], lines 1-3.) An insect trap chamber 40 is communicated to the surrounding atmosphere through the at least one inlet opening 26. (Figure 3; paragraph [0036], lines 3-5.)

The device 10 also includes a supply of a diffusible insect attractant (Paragraph [0040], lines 1-2), and at least one airflow generator 42 that is operable to generate an outflow flowing outwardly to the surrounding atmosphere through the at least one outlet opening 30. (Figure 3; paragraph [0037], lines 9-13.) The outflow consists essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein from the supply. (Paragraph [0029], lines 2-4; paragraph [0040], lines 8-10.) The at least one airflow generator 42 is also operable to generate an inflow flowing inwardly from the surrounding atmosphere through the at least one inlet opening 26 and then into the insect trap chamber 40, to enable the inflow to draw insects attracted to the device 10 by the insect attractant diffused in the outflow into the insect trap chamber 40. (Figure 3; paragraph [0037], lines 2-13.)

The device 10 also includes an attractant receptacle 50 in which the supply of diffusible insect attractant is received. (Figure 4, paragraph [0040], lines 1-2.) The attractant receptacle 50 is positioned such that the outflow flows through the receptacle 50 for exposure to the insect attractant. (Figure 3, paragraph [0040], lines 2-10.) The attractant receptacle 50 is constructed to enable the insect attractant to be removed therefrom for replacement. (Paragraph [0048], lines 11-13.) An electrically-powered heater is disposed proximate the attractant receptacle 50, the heater is operable to heat the supply of the diffusible insect attractant in the attractant receptacle 50 above ambient temperature so as to facilitate diffusion of the insect attractant in the outflow. (Paragraph [0041], lines 1-9.)

B. Independent Claim 26

Independent claim 26 recites a method for attracting and capturing flying insects. (Paragraph [0029], lines 8-11.) The method comprises providing a device 10 comprising an insect trap chamber 40 (Figure 3; paragraph [0036], lines 3-5), a supply of a diffusible insect attractant (Paragraph [0040], lines 1-2), at least one electrically-powered airflow generator 42 (Figure 3; paragraph [0037], lines 5-9), an attractant receptacle 50 in which the supply of the diffusible insect attractant is received (Figure 4, paragraph [0040], lines 1-2), and an electrically-powered heater disposed proximate the attractant receptacle 50. (Paragraph [0041], lines 1-9.) The method also includes heating the supply of the diffusible insect attractant above ambient temperature with the electrically-powered heater to facilitate diffusion of the insect attractant. (Paragraph [0041], lines 1-5.)

The method further includes generating, with the at least one airflow generator, an outflow flowing outwardly through at least one outflow opening provided on the device and communicated to a surrounding atmosphere (Paragraph

[0037], lines 11-13), the outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein from the supply thereof. (Paragraph [0029], lines 2-4; paragraph [0040], lines 8-10.)

The method also includes drawing, with the at least one airflow generator, an inflow flowing inwardly through at least one inflow opening and then into the insect trap chamber (Paragraph [0037], lines 9-11), the at least one inflow opening being provided on the device and communicated to the surrounding atmosphere (Figure 1; paragraph [0032], lines 5-8), thereby enabling the inflow to draw insects attracted to the device by the insect attractant diffused in the outflow into the insect trap chamber (Figure 3; paragraph [0034], lines 1-7). The method further includes flowing the outflow through the attractant receptacle for exposure to the insect attractant. (Figure 3; paragraph [0040], lines 1-2.)

C. Independent Claim 32

Independent claim 32 recites a device 10 for capturing flying insects. (Figure 1; paragraph [0029], lines 8-10.) The device 10 comprises a frame 14 (Figure 1; paragraph [0030], line 1) providing at least one inlet opening 26 communicated to a surrounding atmosphere (Figure 1; paragraph [0032], lines 5-8), an insect trap chamber 40 communicated to the surrounding atmosphere through the at least one inlet opening 26 (Figure 3; paragraph [0036], lines 3-5), and a supply of a diffusible insect attractant. (Paragraph [0040], lines 1-2.)

The device 10 also includes an attractant receptacle 50. (Figure 4, paragraph [0040], lines 1-2.) The supply of the diffusible insect attractant is received within the attractant receptacle. (Paragraph [0040], lines 1-2.) The attractant receptacle has at least one adjustable opening 66, 74. (Figure 5; paragraph [0049], lines 1-12.) The adjustable opening 66, 74 is selectively adjustable so as to control exposure of the

insect attractant, thereby controlling a rate of diffusion of the insect attractant.
(Paragraph [0049], lines 11-13.)

The device 10 further includes at least one airflow generator 42 is operable to generate an inflow flowing inwardly from the surrounding atmosphere through the at least one opening 26 and then into the insect trap chamber 40, to enable the inflow to draw insects attracted to the device 10 by the insect attractant into the insect trap chamber 40. (Figure 3; paragraph [0037], lines 2-13.)

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-31 and 42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,145,243 to Wigton et al. (“Wigton”) in view of U.S. Patent No. 6,443,434 to Prather (“Prather”). Claims 32-41 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wigton. The grounds of rejection to be reviewed on appeal are whether claims 1-31, and 42 are obvious under 35 U.S.C. §103(a) over Wigton in view of Prather, and whether claims 32-41 are obvious under 35 U.S.C. §103(a) over Wigton.

VII. ARGUMENT

A. SUMMARY OF THE ARGUMENT

A *prima facie* case of obviousness has not been made for the rejection of claims 1-31, because the combination of Wigton and Prather fails to disclose or suggest each and every limitation of independent claims 1 and 26 and dependent claims 2-25, and 27-31.

Specifically, the combination of Wigton and Prather cannot arguably be regarded as having an outflow consisting essentially of ambient air from the

surrounding atmosphere with the insect attractant diffused therein, as recited by independent claims 1 and 26. The device of Wigton combusts a hydrocarbon fuel to generate an exhaust gas containing an elevated amount of carbon dioxide for use as an insect attractant and also teaches that an additional chemical insect attractant may be used with the carbon dioxide. This exhaust gas is clearly not ambient air. The Examiner used Prather for its teaching of using a heater for heating a deer attractant to improve diffusion of the deer attractant into air. The combination of Wigton and Prather would simply add a heater to the open vial of the chemical attractant in Wigton. This combination would still not meet the claimed requirement of an outflow consisting essentially of ambient air with the insect attractant diffused therein, as the outflow would still exhaust gas of Wigton's combustion device as a significant component.

In addition, the device of independent claim 1 includes an attractant receptacle that is positioned such that the outflow flows through the receptacle for exposure to the insect attractant and the method of independent claim 26 includes flowing the outflow through the attractant receptacle for exposure to the insect attractant. Both Wigton and Prather teach the use of an open vial that allows a chemical attractant (for insects in Wigton and for deer in Prather) to evaporate into its surroundings. Neither reference teaches that an outflow flows through the receptacle, as claimed.

As such, the combination of Wigton and Prather cannot make independent claims 1 and 26 obvious. Claims 2-25 depend from claim 1, claims 27-31 depend from claim 26. Because these dependent claims include all of the features of the claims from which they depend, claims 2-25 and claims 27-31 are also patentable over Wigton in view of Prather. See MPEP § 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is

nonobvious.”) Moreover, dependent claims 2, 12, 13, 15, 16, 18, 19, 27 contain additional features that are not disclosed or suggested by Wigton or Prather, and are therefore patentable over Wigton in view of Prather for the additional reasons discussed below.

A *prima facie* case of obviousness has not been made for the rejection of claims 32-41 because Wigton fails to disclose or suggest each and every limitation of independent claim 32, and dependent claims 33-41.

Specifically, Wigton does not teach or suggest a device for attracting and capturing flying insects that includes an attractant receptacle having at least one adjustable opening so as to control the exposure of the insect attractant, as recited in independent claim 32. As such, Wigton cannot make independent claim 32 obvious.

Claims 33-41 depend from claim 32. Because these dependent claims include all of the features of the claims from which they depend, claims 33-41 are also patentable over Wigton. See MPEP § 2143.03 (“If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.”) In addition, dependent claim 33 contains an additional feature that is not disclosed or suggest by Wigton and is therefore patentable over Wigton for the additional reason discussed below.

A *prima facie* case of obviousness also has not been made for the rejection of claim 42, because the combination of Wigton and Prather fails to disclose or suggest each and every limitation of claim 42.

Claim 42 depends from claim 32. As stated above, Wigton does not disclose or suggest all of the features of claim 32. Prather does not make up for the deficiencies of Wigton. Specifically, Prather does not disclose or suggest an attractant receptacle having at least one adjustable opening so as to control the exposure of the

insect attractant, as recited in independent claim 32. As such, the combination of Wigton and Prather does not disclose or suggest all of the limitations of claim 42, because the combination of Wigton and Prather does not disclose or suggest all of the limitations of independent claim 32.

B. DETAILED DISCUSSION OF THE ARGUMENT

1. A *Prima Facie* Case of Obviousness Has Not Been Made by the Examiner in Rejecting Claims 1-31

In rejecting claims under 35 U.S.C. § 103(a), an Examiner bears an initial burden of presenting a *prima facie* case of obviousness. A *prima facie* case of obviousness is established only if 1) there is a suggestion or motivation to combine reference teachings; 2) there is a reasonable expectation of success; and 3) the prior art references must teach or suggest all of the claim limitations. MPEP §2143. As discussed in greater detail below, the Examiner has not met this burden because the Wigton and Prather references do not teach or suggest, either alone or in combination, all of the claim limitations recited in claims 1-31.

a) Applicants' Use of "Consisting Essentially Of" Precludes the Addition of Excess Carbon Dioxide to the Claims (Claims 1 and 26)

Independent claims 1 and 26 each specifically recite

...the outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein...

(emphasis added). The use of "consisting essentially of" as a transitional phrase is to be interpreted as limiting the scope of a claim to the specified materials "and those that do not materially affect the basic and novel characteristic(s)' of the claimed invention." MPEP § 2111.03, *quoting In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original). *See also In re De Lajarte*, 143 USPQ 256, 258-59 (CCPA 1964) (the appellant has burden of showing the basic and novel characteristics of his invention, which may be met by pointing out the characteristic in

his specification and claims); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. Pat. App. & Int. 1948) (“consisting essentially of” three ingredients excluded a fourth ingredient in the prior art because the fourth ingredient materially changed “the fundamental character of the three-ingredient composition” of the claims).

The insect trapping device of Wigton “generates its own insect attractants of carbon dioxide (CO₂) heat and water vapor through catalytic conversion of a hydrocarbon fuel in a combustion chamber.” (Wigton at Abstract.) Moreover, Applicants specifically discussed Wigton in the background section of the specification (*see* paragraphs [0015] and [0016]) and the desire to provide a system that is of significantly lower cost so it would be available to more consumers. It is the Examiner’s position that “carbon dioxide does not materially affect the basic and novel characteristic of the claimed invention.” (Advisory Action mailed June 28, 2005.)

To the contrary, as discussed at paragraph [0058] of Applicants’ specification, combustion devices and devices that use stored gaseous attractants, such as CO₂, are costly, but providing a device that produces an outflow consisting essentially of ambient air from the surrounding atmosphere and the diffused attractant – which Applicants have done – avoids the higher costs associated with such CO₂ emitting devices. (Paragraph [0058].) Hence, including a CO₂ generating device that adds carbon dioxide in excess of the amount found at ambient levels to the outflow of the claimed device does materially alter the basic and novel characteristics of the invention, as claimed in independent claims 1 and 26. This is because such an addition necessarily adds significant cost to the device, which defeats one of the main purposes of Applicants’ invention.

Accordingly, Applicants respectfully submit that independent claims 1 and 26, are patentable over Wigton in view of Prather because the combination of Wigton and Prather does not disclose or suggest an outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein, as recited by claims 1 and 26 and that the rejection to independent claims 1 and 26 should be reversed.

**b) The References do not Teach a Flow of the
Outflow Through the Receptacle (Claims 1 and 26)**

Independent claim 1 recites "...the outflow flows through the receptacle for exposure to the insect attractant...." (Emphasis added.) Independent claim 26 recites "flowing the outflow through the attractant receptacle for exposure to the insect attractant." (Emphasis added.) The combination of Wigton and Prather does not disclose or suggest these features.

Both Wigton and Prather teach the use of an open vial that sits within a compartment of the respective device. Wigton expressly teaches that

A small open vial 134 (FIG. 3) containing a volatile insect attractant can be placed in either of enclosures 16 or 18. The evaporating compound will be drawn into the exhaust flow by exhaust fan 64.

(Wigton at col. 9, lns. 12-16 (emphasis added).) Hence, the exhaust of Wigton does not flow through the receptacle for exposure to the insect attractant. Instead, Wigton's volatile insect attractant evaporates out of the vial and is drawn into the exhaust flow. Prather teaches the use of a holder 20 for a container 18 of liquid scent (Prather at col. 2, lns. 31-33) for attracting deer or other animals. (Prather at col. 1, lns. 33-36.) A heater 25 is used to heat the liquid scent to create a vapor that is mixed with the air that travels through the dispenser. (Prather at col. 2, lns. 36-58 and col. 3, lns. 3-6.)

Accordingly, Applicants respectfully submit that independent claim 1 is patentable over Wigton in view of Prather for the additional reason that the combination of Wigton and Prather does not disclose or suggest a device for attracting and trapping insects that includes, *inter alia*, “an attractant receptacle in which the supply of diffusible insect attractant is received, the attractant receptacle being positioned such that the outflow flows through the receptacle for exposure to the insect attractant,” as recited by claim 1, and that the rejection to claim 1 and claims 2-25 that depend from claim 1 should be reversed for this additional reason.

In addition, Applicants respectfully submit that claim 26 is patentable over Wigton in view of Prather for the additional reason the combination of Wigton and Prather does not disclose or suggest a method for attracting and capturing flying insects that includes, *inter alia*, “flowing the outflow through the attractant receptacle for exposure to the insect attractant,” as recited by claim 26, and that the rejection to claim 26 and claims 27-31 that depend from claim 26 should be reversed for this additional reason.

**c) The References do Not Teach a Solid or Semi-Solid
Diffusible Insect Attractant (Claims 2 and 27)**

Claim 2 depends from claim 1, and claim 27 depends from claim 26. Claims 2 and 27 each add “wherein the diffusible insect attractant is a solid or semi-solid insect attractant.” In rejecting claims 2 and 27, the Examiner conceded that both Wigton and Prather disclose a liquid scent, but nonetheless rejected claims 2 and 27 by stating “it would have been obvious to employ a solid or semi-solid scent since the function is the same and no stated problem is solved.” (See Office Action mailed May 4, 2006, page 2, ln. 24 – page 3, ln. 2.) As clearly stated in the MPEP, “[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP § 2143.03, citing *In re Royka*,

490 F.2d 981, 180 USPQ 580 (CCPA 1974) (emphasis added). However, the Examiner has not cited a single reference or other piece of evidence to support this conclusory assertion.

Accordingly, Applicants respectfully submit that claims 2 and 27 are patentable over Wigton in view of Prather, and that the rejection to claims 2 and 27 should be reversed for the aforementioned additional reasons.

d) The References do Not Teach Adjustable Openings in the Attractant Receptacle (Claims 11 and 29)

Dependent claim 11 depends from claim 2, discussed above, and adds

wherein the attractant receptacle has at least one adjustable opening, the at least one adjustable opening being selectively adjustable so as to control exposure of the insect attractant, thereby controlling a rate of diffusion of the insect attractant.

(Emphasis added.) Dependent claim 29 depends from claim 27, discussed above, and adds

wherein the attractant receptacle has at least one adjustable opening, wherein the method further comprises selectively adjusting the adjustable opening to control exposure of the insect attractant, thereby controlling a rate of diffusion of the insect attractant.

(Emphasis added.) The Examiner has conceded that neither Wigton nor Prather show an adjustable opening for the attractant. (See Office Action mailed May 4, 2006, page 3, lns. 12-13.) Indeed, the Examiner has failed to rely on a single reference for teaching this feature. Instead, the Examiner merely asserts that “it would have been obvious to make the opening adjustable. See *In re Stevens*, 101 USPQ 284.” (See Office Action mailed May 4, 2006, page 3, lns. 13-14.)

As was set forth in the Amendment After Final, which was filed on June 3, 2005, the court in *In re Stevens* held that “adjustability, where needed, is not a patentable advance.” *In re Stevens*, 101 USPQ 284, 285 (CCPA 1954). The court

also explained that the need for adjustment in a fishing rod had been long recognized as desirable. *Id.* In that case, an adjustable fishing rod was already known, and a single pivot was replaced by a universal joint. *Id.* In contrast, neither Wigton nor Prather disclose or even remotely suggest that their open vials that hold liquid scents are adjustable, or that there is any need for them to be adjustable.

As is clearly explained in MPEP §2144, the facts in a prior legal decision must be sufficiently similar for the Examiner to use the rationale used by the court. *In re Stevens* does not apply to the present case, because, unlike the court in that case, the Examiner has not demonstrated any need for the recited “adjustable opening.”

Moreover, the Examiner has failed to cite any motivation or suggestion for modifying the prior art to provide the claims “adjustable opening.” All that the Examiner has relied on is mere speculation and inapposite case law. This is insufficient to support a *prima facie* case of obviousness, as discussed above. *See, e.g., In re Fine*, 837 F.2d 1071, 1074-75, 5 USPQ2d 1596, 1598-99 (Fed. Cir. 1988); *In re Mills*, 916 F.2d 680, 682-83, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990).

Accordingly, Applicants respectfully submit that dependent claims 11 and 29 are patentable over Wigton in view of Prather, and respectfully request that the rejection to dependent claims 11 and 29 be reversed for this additional reason.

**e) The References do Not Teach a Heater Element that
Encircles a Supply of Solid or Semi-Solid Diffusible
Insect Attractant (Claims 12, 15 and 18)**

Claim 12 depends from claim 11, claim 15 depends from claim 2, and claim 18 depends from claim 17. Claims 12 and 18 add “wherein the heater element encircles the supply of the solid or semi-solid diffusible insect attractant.” Claim 15 adds “wherein the heater encircles the supply of the solid or semi-solid diffusible insect attractant.” As conceded by the Examiner, neither Wigton nor Prather discloses

a heating element encircling the insect attractant. Instead, the Examiner merely asserts that “it would have been obvious to encircle the attractant to maximize heat transfer to the attractant.” (See Office Action mailed April 5, 2005, page 3, Ins. 19-20.) However, the Examiner has not cited a single reference as to why such an arrangement would be obvious. All that the Examiner has relied on is mere speculation. This is insufficient to support a *prima facie* case of obviousness, as discussed above. See, e.g., *In re Fine*, 837 F.2d 1071, 1074-75, 5 U.S.P.Q.2d 1596, 1598-99 (Fed. Cir. 1988); *In re Mills*, 916 F.2d 680, 682-83, 16 U.S.P.Q.2d 1430, 1432 (Fed. Cir. 1990).

Accordingly, Applicants respectfully submit that claims 12, 15, and 18 are patentable over Wigton in view of Prather, and respectfully request that the rejection to claims 12, 15, and 18 be reversed for these additional reasons.

f) The References do Not Teach a Solid or Semi-Solid Diffusible Insect Attractant that has an Internal Bore and a Heater Element Positioned Within the Internal Bore (Claims 13, 16 and 19)

Claim 13 depends from claim 11, claim 16 depends from claim 2, and claim 19 depends from claim 17. Claims 13 and 19 add “wherein the solid or semi-solid diffusible insect attractant has an internal bore, and wherein the heater element is positioned within the internal bore.” Claim 16 adds “wherein the solid or semi-solid diffusible insect attractant has an internal bore, and wherein the heater is positioned within the internal bore.” In rejecting these claims, the Examiner stated “Prather shows a heating element placed in a liquid attractant so it would have been obvious to locate [sic] a heating element in the middle of the attractant such as in an [sic] internal bore.” (See Office Action mailed April 5, 2005, page 3, Ins. 20-22.)

However, Prather does not even teach an attractant with an internal bore. In Prather, the attractant is a liquid. There can be no internal bore. Thus, this claim limitation is clearly missing from the references.

Absent Applicants' disclosure, it would not have been obvious to position a heating element in an internal bore of a solid or semi-solid insect attractant, as claimed in claims 13, 16, and 19. Accordingly, Applicants respectfully submit that claims 13, 16, and 19 are patentable over Wigton in view of Prather, and respectfully request that the rejection to claims 13, 16, and 19 be reversed for these additional reasons.

**g) The Examiner's Rejection Lacks the Requisite
Motivation or Suggestion for Combining
Wigton and Prather (Claims 1-31)**

In addition to not teaching all of the limitations of claims 1-31, the Examiner has not cited any objective evidence of a motivation or suggestion to combine and modify Wigton and Prather as asserted. That is, the Examiner cites no reason why one of ordinary skill in the art would be motivated to combine and modify Wigton and Prather to arrive at the inventions of claims 1-31.

Evidence of a proper motivation is required to support a *prima facie* case of obviousness. *See In re Fine*, 837 F.2d 1071, 1074-75, 5 USPQ2d 1596, 1598-99 (Fed. Cir. 1988) (holding that the Board of Patent Appeals & Interferences erroneously upheld rejection of claims where prior art references failed to disclose a material limitation of the claims and that there was no evidence supporting the Board's assertion that the art showed a motivation or suggestion to combine references); *see also* MPEP § 2143.03. It is not sufficient to simply cite references that could be capable of being combined to establish a *prima facie* case of obviousness; instead, the Examiner must establish a motivation or suggestion to

combine the references as asserted. *See In re Mills*, 916 F.2d 680, 682-83, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990); *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (stating that PTO is required to cite evidence, either in the references themselves or in the knowledge generally available to one skilled in the art, to support assertions underlying the *prima facie* case of obviousness); *see also* MPEP § 2143.01.

Here, no objective evidence as to why one of ordinary skill in the art would make the asserted combination has been provided. More importantly, combining Wigton and Prather makes no sense. Specifically, because Wigton uses combustion to generate the carbon dioxide-laden exhaust gas, the exhaust gas flowing past an open vial of liquid chemical attractant will be above ambient temperature. Thus, the chemical attractant will already be heated. There is simply no reason to provide the Wigton device with a heater to heat the chemical attractant when it is already heated by the exhaust gas outflow.

This lack of any cogent reason to combine Wigton and Prather in view of the fact that such a combination is duplicative is a fundamental shortcoming of the Examiner's rejections, and shows that the Examiner is simply engaging in a piecemeal and hindsight reconstruction of the prior art. This is impermissible. *See In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965) ("Such piecemeal reconstruction of the prior art patents in light of appellant's disclosure is contrary to the requirements of 35 U.S.C. § 103.")

Thus, for this additional reason, the rejection to claims 1-31 should be reversed.

**2. A *Prima Facie* Case of Obviousness Has Not Been Made
by the Examiner in Rejecting Claims 32-42**

As discussed above, in rejecting claims under 35 U.S.C. § 103(a), an Examiner bears an initial burden of presenting a *prima facie* case of obviousness. A *prima facie* case of obviousness is established only if 1) there is a suggestion or motivation to combine reference teachings; 2) there is a reasonable expectation of success; and 3) the prior art references must teach or suggest all of the claim limitations. MPEP §2143. As discussed in greater detail below, the Examiner has not met this burden because the Wigton reference does not teach or suggest all of the claim limitations recited in claims 32-41, and the combination of the Wigton and Prather references does not teach or suggest all of the claim limitations in claim 42.

**a) The Wigton Reference does Not Teach Adjustable
Openings in the Attractant Receptacle (Claims 32-42)**

Independent claim 32 recites a device for attracting and capturing flying insects that includes, *inter alia*, an

attractant receptacle having at least one adjustable opening, the adjustable opening being selectively adjustable so as to control exposure of the insect attractant, thereby controlling a rate of diffusion of the insect attractant....

(Emphasis added.) The Examiner has conceded that Wigton does not disclose that the opening of the attractant receptacle has at least one adjustable opening. (See Office Action mailed May 4, 2006, page 4, lns. 10-11.) Instead, the Examiner merely asserted that “it would have been obvious to employ an adjustable opening to change the amount of attractant released to suit different operating conditions such as wind and temperature. See *In re Stevens*, 101 USPQ 284.” (See Office Action mailed May 4, 2006, page 4, lns. 11-14.)

As was set forth in the Amendment After Final, which was filed on June 3, 2005, and discussed above, the court in *In re Stevens* held that “adjustability, where

needed, is not a patentable advance.” *In re Stevens*, 101 USPQ 284, 285 (CCPA 1954). The court also explained that the need for adjustment in a fishing rod had been long recognized as desirable. *Id.* In that case, an adjustable fishing rod was already known, and a single pivot was replaced by a universal joint. *Id.* In contrast, neither Wigton nor Prather disclose or even remotely suggest that their open vials that hold liquid scents are adjustable, or that there is any need for them to be adjustable.

As is clearly explained in MPEP §2144, the facts in a prior legal decision must be sufficiently similar for the Examiner to use the rationale used by the court. *In re Stevens* does not apply to the present case, because, unlike the court in that case, the Examiner has not demonstrated any need for the recited “adjustable opening.”

Moreover, the Examiner has failed to cite any motivation or suggestion for modifying the prior art to provide the claimed “adjustable opening.” All that the Examiner has relied on is mere speculation and inapposite case law. This is insufficient to support a *prima facie* case of obviousness, as discussed above. *See, e.g., In re Fine*, 837 F.2d 1071, 1074-75, 5 USPQ2d 1596, 1598-99 (Fed. Cir. 1988); *In re Mills*, 916 F.2d 680, 682-83, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990).

Accordingly, Applicants respectfully submit that independent claim 32 is patentable over Wigton, and respectfully request that the rejection of claim 32, and claims 33-42 that depend from claim 32 be reversed.

**b) Applicants’ Use of “Consisting Essentially Of”
Precludes the Addition of Excess Carbon Dioxide
(Claim 37)**

Claim 37 ultimately depends from claim 32 and adds “wherein the outflow consists essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein.” In rejecting claim 37, the Examiner referred to the

rejection of claims 1-31. (See Office Action mailed May 4, 2006, page 4, ln. 14, “In reference to claims 33-41, see the rejection of claims 1-31, above.”)

As discussed above with regard to claims 1-31, Wigton does not disclose or suggest an outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein. Accordingly, Applicants respectfully submit that claim 37 is patentable over Wigton, and respectfully request that the rejection to claim 37 be reversed for this additional reason.

c) The References do Not Teach a Solid or Semi-Solid Diffusible Insect Attractant (Claim 33)

Claim 33 depends from claim 32 and adds “wherein the diffusible insect attractant is a solid or semi-solid insect attractant.” In rejecting claim 33, the Examiner referred to the rejection of claims 1-31. (See Office Action mailed May 4, 2006, page 4, ln. 14, “In reference to claims 33-41, see the rejection of claims 1-31, above.”)

In the rejection of claims 2 and 27, discussed above, the Examiner conceded that both Wigton and Prather disclose a liquid scent, but nonetheless those claims by stating “it would have been obvious to employ a solid or semi-solid scent since the function is the same and no stated problem is solved.” (See Office Action mailed May 4, 2006, page 2, ln. 24 – page 3, ln. 2.) As clearly stated in the MPEP, “[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP § 2143.03, citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (emphasis added). However, the Examiner has not cited a single reference or other piece of evidence to support this conclusory assertion.

Accordingly, Applicants respectfully submit that claim 33 is patentable over Wigton, and respectfully request that the rejection to claim 33 be reversed for this additional reason.

**d) The Examiner's Rejection Lacks the Requisite
Motivation or Suggestion for Combining
Wigton and Prather (Claim 42)**

Claim 42 depends from claim 32 and adds "an electrically powered heater operable to heat the supply of the diffusible insect attractant above ambient temperature so as to facilitate diffusion of the insect attractant." In addition to not teaching all of the limitations of claim 32, and therefore claim 42 by its dependency, as discussed above, the Examiner has not cited any objective evidence of a motivation or suggestion to combine and modify Wigton and Prather as asserted. That is, the Examiner cites no reason why one of ordinary skill in the art would be motivated to combine and modify Wigton and Prather to arrive at the invention of claim 42.

As discussed above with regard to claims 1-31, no objective evidence as to why one of ordinary skill in the art would make the asserted combination has been provided by the Examiner, and, more importantly, combining Wigton and Prather makes no sense, because Wigton uses combustion to generate the carbon dioxide-laden exhaust gas and therefore the exhaust gas flowing past an open vial of liquid chemical attractant will be above ambient temperature. Thus, the chemical attractant of Wigton will already be heated, so there would be no motivation to add a heater to the device of Wigton. Thus, for this additional reason, the rejection to claim 42 should be reversed.

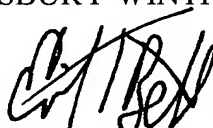
VIII. CONCLUSION

In conclusion, Applicants respectfully submit that, based on the reasons advanced above, all pending claims 1-42 are patentable. Specifically, Applicants respectfully submit that claims 1-31 and 42 are patentable over Wigton in view of Prather, and that claims 32-41 are patentable over Wigton. Accordingly, Applicants respectfully request reversal of the Examiner's rejections with respect to claims 1-31 and 42, and claims 32-41.

Respectfully submitted,

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CLAIMS APPENDIX

Claims to be reviewed on appeal are claims 1-42, which are as follows:

1. A device for attracting and capturing flying insects, the device comprising:

a frame providing at least one outlet opening and at least one inlet opening, each of the outlet and inlet openings being communicated to a surrounding atmosphere;

an insect trap chamber communicated to the surrounding atmosphere through the at least one inlet opening;

a supply of a diffusible insect attractant;

at least one airflow generator operable to generate (a) an outflow flowing outwardly to the surrounding atmosphere through the at least one outlet opening, the outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein from the supply and (b) an inflow flowing inwardly from the surrounding atmosphere through the at least one inlet opening and then into the insect trap chamber, thereby enabling the inflow to draw insects attracted to the device by the insect attractant diffused in the outflow into the insect trap chamber;

an attractant receptacle in which the supply of diffusible insect attractant is received, the attractant receptacle being positioned such that the outflow flows through the receptacle for exposure to the insect attractant, the attractant receptacle being constructed to enable the insect attractant to be removed therefrom for replacement; and

an electrically-powered heater disposed proximate the attractant receptacle, the heater being operable to heat the supply of the diffusible insect attractant in the attractant receptacle above ambient temperature so as to facilitate diffusion of the insect attractant in the outflow.

2. A device according to claim 1, wherein the diffusible insect attractant is a solid or semi-solid insect attractant.

3. A device according to claim 2, wherein the heater element is positioned immediately adjacent the supply of the solid or semi-solid diffusible insect attractant.

4. A device according to claim 3, wherein said insect trap chamber includes a perforated trap having a plurality of perforations sized to enable the inflow drawn into said insect trap chamber to flow therethrough but to prevent passage of the insects therethrough.

5. A device according to claim 4, wherein the at least one outlet opening is communicated to the insect trap chamber by an outflow path, wherein the at least one inlet opening is communicated to the insect trap chamber by an inlet path, and wherein the inflow flowing through the perforated trap flows into the outflow path to become the outflow.

6. A device according to claim 5, wherein the at least one airflow generator comprises a fan system positioned between the outlet path and the insect trap chamber, the fan system being arranged to generate both the inflow and the outflow by drawing ambient air inwardly from the surrounding atmosphere through the at least one inlet opening, the inflow path and the perforated trap, and then forcing the ambient air outwardly to the surrounding atmosphere through the outlet path and the at least one outflow opening.

7. A device according to claim 6, wherein said fan system includes a single fan.

8. A device according to claim 7, further comprising a power cord with a connector on a free end thereof, said cord being electrically connected to said fan and said connector being configured for connection to an electrical power supply for supplying electricity to said fan.

9. A device according to claim 7, further comprising one or more replaceable batteries for supplying electrical power to said fan.

10. A device according to claim 7, further comprising one or more solar arrays for supplying electrical power to said fan.

11. A device according to claim 2, wherein the attractant receptacle has at least one adjustable opening, the at least one adjustable opening being selectively adjustable so as to control exposure of the insect attractant, thereby controlling a rate of diffusion of the insect attractant.

12. A device according to claim 11, wherein the heater element encircles the supply of the solid or semi-solid diffusible insect attractant.

13. A device according to claim 11, wherein the solid or semi-solid diffusible insect attractant has an internal bore, and wherein the heater element is positioned within the internal bore.

14. A device according to claim 11, wherein the heater is a resistance heater.

15. A device according to claim 2, wherein the heater encircles the supply of the solid or semi-solid diffusible insect attractant.

16. A device according to claim 2, wherein the solid or semi-solid diffusible insect attractant has an internal bore, and wherein the heater is positioned within the internal bore.

17. A device according to claim 2, wherein the heater is a resistance heater.

18. A device according to claim 17, wherein the heater element encircles the supply of the solid or semi-solid insect attractant.

19. A device according to claim 17, wherein the solid or semi-solid diffusible insect attractant has an internal bore, and wherein the heater is positioned within the internal bore.

20. A device according to claim 1, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

21. A device according to claim 2, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

22. A device according to claim 6, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

23. A device according to claim 11, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

24. A device according to claim 15, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying

along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

25. A device according to claim 16, wherein the outflow flows downwardly and outwardly from the device, and wherein the at least one airflow generator draws the inflow substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the trap by the inflow.

26. A method for attracting and capturing flying insects, the method comprising:

providing a device comprising (a) an insect trap chamber, (b) a supply of a diffusible insect attractant, (c) at least one electrically-powered airflow generator, (d) an attractant receptacle in which the supply of the diffusible insect attractant is received, and (e) an electrically-powered heater disposed proximate the attractant receptacle;

heating the supply of the diffusible insect attractant above ambient temperature with the electrically-powered heater to facilitate diffusion of the insect attractant;

generating, with the at least one airflow generator, an outflow flowing outwardly through at least one outflow opening provided on the device and communicated to a surrounding atmosphere, the outflow consisting essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein from the supply thereof;

drawing, with the at least one airflow generator, an inflow flowing inwardly through at least one inflow opening and then into the insect trap chamber, the at least one inflow opening being provided on the device and communicated to the surrounding atmosphere, thereby enabling the inflow to draw insects attracted to the device by the insect attractant diffused in the outflow into the insect trap chamber, and

flowing the outflow through the attractant receptacle for exposure to the insect attractant.

27. A method according to claim 26, wherein the diffusible insect attractant is a solid or semi-solid insect attractant.

28. A method according to claim 27, wherein the insect trap chamber includes a perforated trap having a plurality of perforations and wherein the inflow is drawn through the perforations of the trap, the perforations being sized to enable the inflow to flow therethrough but to prevent passage of the insects therethrough.

29. A method according to claim 27, wherein the attractant receptacle has at least one adjustable opening,
wherein the method further comprises selectively adjusting the adjustable opening to control exposure of the insect attractant, thereby controlling a rate of diffusion of the insect attractant.

30. A method according to claim 26, wherein the inflow is drawn substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the insect trap chamber by the inflow.

31. A method according to claim 27, wherein the inflow is drawn substantially counter to and adjacent an upper portion of the outflow outside the device such that insects attracted to the outflow and flying along the upper portion thereof towards the outflow opening intersect the inflow and thereby are drawn into the insect trap chamber by the inflow.

32. A device for attracting and capturing flying insects, the device comprising:

a frame providing at least one inlet opening communicated to a surrounding atmosphere;

an insect trap chamber communicated to the surrounding atmosphere through the at least one inlet opening;

a supply of a diffusible insect attractant;

an attractant receptacle, the supply of the diffusible insect attractant being received within the attractant receptacle;

the attractant receptacle having at least one adjustable opening, the adjustable opening being selectively adjustable so as to control exposure of the insect attractant, thereby controlling a rate of diffusion of the insect attractant; and

at least one airflow generator operable to generate an inflow flowing inwardly from the surrounding atmosphere through the at least one opening and then into the insect trap chamber, thereby enabling the inflow to draw insects attracted to the device by the insect attractant into the insect trap chamber.

33. A device according to claim 32, wherein the diffusible insect attractant is a solid or semi-solid insect attractant.

34. A device according to claim 32, wherein the insect trap chamber includes a perforated trap having a plurality of perforations sized to enable the inflow drawn into the insect trap chamber to flow therethrough but to prevent passage of the insects therethrough.

35. A device according to claim 32, wherein the frame provides at least one outflow opening communicated to the surrounding atmosphere,

the at least one airflow generator also being operable to generate an outflow flowing outwardly to the surrounding atmosphere through the at least one outflow opening.

36. A device according to claim 35, wherein the attractant receptacle and the insect attractant are positioned such that the attractant diffuses into the outflow.

37. A device according to claim 36, wherein the outflow consists essentially of ambient air from the surrounding atmosphere with the insect attractant diffused therein.

38. A device according to claim 37, wherein the insect trap chamber includes a perforated trap having a plurality of perforations sized to enable the inflow

drawn into the insect trap chamber to flow therethrough but to prevent passage of the insects therethrough.

39. A device according to claim 38, wherein the at least one outflow opening is communicated to the insect trap chamber by an outflow path, wherein the at least one inlet opening is communicated to the insect trap chamber by an inlet path, and wherein the inflow flowing through the perforated trap flows into the outflow path to become the outflow.

40. A device according to claim 39, wherein the at least one airflow generator comprises a fan system positioned between the outflow path and the insect trap chamber, the fan system being arranged to generate both the inflow and the outflow by drawing ambient air inwardly from the surrounding atmosphere through the at least one inlet opening, the inflow path, and the perforated trap, and then forcing the ambient air outwardly to the surrounding atmosphere through the outlet path and the at least one outflow opening.

41. A device according to claim 40, wherein the fan system includes a single fan.

42. A device according to claim 32, further comprising an electrically powered heater operable to heat the supply of the diffusible insect attractant above ambient temperature so as to facilitate diffusion of the insect attractant.

EVIDENCE APPENDIX

NONE.

RELATED PROCEEDINGS APPENDIX

NONE.